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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,100	06/23/2003	David Keating	681331-96	7262
23879	7590	07/14/2005		
BRIAN M BERLINER, ESQ O'MELVENY & MYERS, LLP 400 SOUTH HOPE STREET LOS ANGELES, CA 90071-2899			EXAMINER CHAMBLISS, ALONZO	
			ART UNIT 2814	PAPER NUMBER

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/602,100

Applicant(s)

KEATING, DAVID

Examiner

Alonzo Chambliss

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
 4a) Of the above claim(s) 13-34, 36, 40 and 41 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-4, 6-12, 35 and 37-39 is/are rejected.
 7) ☒ Claim(s) 5 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 11/1/04.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-13, 35, and 37-39 in the reply filed on 4/18/05 is acknowledged. However, claim 13 should be included in the non-elected species since the claims recites a stiff major panel.
2. Claims 13-34, 36, 40, and 41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 11/1/04 was filed before the mailing date of the non-final rejection on 7/11/05. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

4. The formal drawings file don 6/23/03 have been approved by the examiner.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: " MICRO LEAD FRAME PACKAGE ".

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. In claim 11, the phrase "mounting the lead frame substrate on a lead frame" is vague and indefinite since it is not clear from the claim how the lead frame substrate can be mounted on a lead frame when they are one in the same.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-4, 6-10, 12, and 35 – 39 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sakamoto et al. (US 6,624,511).

With respect to Claims 1 and 35, Sakamoto teaches a plurality of leads located about a periphery of the lead frame substrate 51, a plurality of connection bars (i.e. conductive material 51 between passive devices 23 or 24), a plurality of

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semiconductor die pads (i.e. located below semiconductor device 34), wherein each one of the plurality of semiconductor die pads being adapted to receive a semiconductor die 34. A plurality of termination pads (i.e. located below passive devices 23 or 24 and pads that have wire bond connection), each one of the plurality of termination pads being adapted to receive a passive component 23, 24 and a bonding wire 42 or 43. The plurality of termination pads is linked together and to the plurality of semiconductor die pads by the plurality of connection bars. A molding compound 50 fixing the plurality of semiconductor die pads, the plurality of termination pads, the plurality of connection bars, and the plurality of leads together (see col. 8 lines 42-67, col. 9 lines 32-67, and col. 10 lines 35-67; Figs. 1 and 3A).

With respect to Claims 2 and 3, Sakamoto teaches wherein the semiconductor die pad, the plurality of termination pads, and the plurality of connection bars comprise a thermally and electrically conductive material comprising copper (see col. 9 lines 53-55).

With respect to Claim 4, Sakamoto teaches wherein the semiconductor die pad, the plurality of termination pads, and the plurality of connection bars include a top and bottom surface (see Figs. 1 and 3A).

With respect to Claims 6 and 39, Sakamoto teaches wherein the frame, the plurality of connection bars, the plurality of semiconductor die pads, and the plurality of termination pads have a unitary construction from a common piece of conductive material (see Figs. 5, 6A, 6B, 7, 8, 9A, and 9B).

With respect to Claim 7, Sakamoto teaches a plurality of leads 21 around a periphery of the lead frame substrate (see Fig. 2).

With respect to Claims 8 and 37, Sakamoto teaches wherein the plurality of connection bars electrically couple the plurality of semiconductor die pads to the plurality of termination pads (see Fig. 1).

With respect to claim 9, Sakamoto teaches wherein the plurality of connection bars electrically couples the plurality of termination pads together (see Fig. 1).

With respect to Claim 10, Sakamoto teaches wherein the plurality of connection comprises permanent connection bars and temporary connection bars (i.e. any one of the connection bars that are not needing in the electrical layout after fabrication) (see Fig. 1).

With respect to Claims 12 and 38, Sakamoto teaches wherein the lead frame substrate comprises a substantially uniform thickness (see Figs. 3A-3C, 9A, and 9B).

The prior art made of record and not relied upon is cited primarily to show the product of the instant invention.

Allowable Subject Matter

11. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reason for the indication of allowance subject matter: the prior art of record does not teach or suggest the combination of the molding compound leaves the top and bottom surfaces uncovered.

Conclusion

12. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (571) 272-1927.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system see <http://pair-dkect.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC_Support@uspto.gov.

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AC/July 11, 2005

A handwritten signature in cursive script, reading "Alonzo Chambliss".

Alonzo Chambliss
Primary Patent Examiner
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